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REMARKS

Claims 1-12, 14, and 23-32 are pending in the present application. Claims 1, 6, 14, 24, and 25 have been amended.

Claims 1 and 24 have been amended to further define the position of the endplates. Support for the amendment to claims 1 and 24 can be found on page 6, lines 7 to 12, as well as in the Figures. Claims 6 and 14 have been amended for the purpose of better defining the invention and for consistency with the claims from which they depend, and claim 25 has been amended to clarify how the first and second annular rings are related to the first and second endplate support mechanisms.

No new matter has been introduced by the amendments. Reconsideration and allowance is respectfully requested in view of the above amendments and the following.

Claim Rejection Under 35 U.S.C. § 112, second paragraph

Claims 14, 25-28, and 30 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. More particularly, the Examiner alleges that the term "said periphery" in claim 14 lacks antecedent basis, and that it is unclear as to how the first and second annular rings are related to the first and second endplate support mechanisms set forth in claim 24. Claim 14 has been amended to delete the term "said periphery", and claim 25 has been amended to clarify how the first and second annular rings are related to the first and second endplate support mechanisms set forth in claim 24. Accordingly, reconsideration and withdrawal of the rejection of claims 14, 25-28, and 30 under 35 U.S.C. § 112, second paragraph, is respectfully requested.

Claim Rejection Under 35 U.S.C. § 102(b)

A. Claims 1-3, 5-8, 10, 23-27, and 29-32 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 4,043,761 to Gaysert et al. Applicant respectfully traverses.

U.S. Patent No. 4,043,761 to Gaysert et al. (hereinafter "Gaysert") is directed to a device for the catalytic purification of exhaust gases of internal combustion engines, comprising a

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tubular metal housing, a tubular casing and a substantially cylindrical monolithic catalyst carrier (Gaysert at claim 1). Gaysert discloses that the tubular housing is connected at one end to an exhaust gas supply pipe and at the opposite end to an exhaust discharge pipe (Gaysert at Column 3, lines 48-51).

Applicant's independent claims 1 and 24, as amended, are directed to an exhaust system converter, comprising, *inter alia*: a catalyst; a first endplate defining a first extreme end of said converter and comprising a first endplate support mechanism extending perpendicularly therefrom toward said catalyst; a mat support substantially covering said catalyst and at least a portion of said first endplate support mechanism, wherein said first endplate support mechanism is disposed between said mat support and said catalyst; and a shell having a diameter greater than that of said first endplate, wherein said shell is disposed around said catalyst and said mat support, and is disposed around and in intimate contact with at least a portion of said first endplate.

Gaysert doesn't teach a first endplate defining a first extreme end of said converter and comprising a first endplate support mechanism extending perpendicularly therefrom toward said catalyst, wherein said first endplate support mechanism is disposed between said mat support and said catalyst, and wherein said shell is disposed around and in intimate contact with at least a portion of said first endplate, as is recited in Applicant's amended claims 1 and 24. The Examiner alleges that the angled shaped bearing member 9 is an endplate. However, as can be seen from Fig. 2 of Gaysert, neither bearing member 9 or 10 define extreme ends of the converter. Instead, the converter of Gaysert has transition pieces 16 and 18 and supply and discharge pipes 15 and 17 that define the extreme ends of the converter, with bearing members 9 and 10 being disposed inside the housing 7. Indeed, the design of Gaysert would not work if the bearing members 9 and 10 defined the extreme ends of the converter because the design of Gaysert relies on transition pieces 16 and 18 to support the supply and discharge pipes 15, 17 and the connection pieces 19, 20, respectively, independently from bearing members 9 and 10, which provide a resilient coupling between the housing 7 and the tubular casing 2 that supports the catalyst carrier 1. The design of Gaysert thereby allows the catalyst carrier 1 and the housing 7 to expand and contract independent of each other, which would not happen if bearing member 9 or 10 defined the extreme ends of the converter without transition piece 16 or 18. In addition, neither transition piece 16 or 18 can be considered as the "first endplate" because the transition

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pieces 16, 18 do not include "a first endplate support mechanism extending perpendicularly therefrom", as is recited in Applicant's independent claims 1 and 24.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Moreover, "[t]he identical invention must be shown in as complete detail as is contained in the * * * claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Since Gaysert fails to teach a first endplate defining a first extreme end of said converter and comprising a first endplate support mechanism extending perpendicularly therefrom toward said catalyst wherein said first endplate support mechanism is disposed between said mat support and said catalyst and wherein said shell is disposed around and in intimate contact with at least a portion of said first endplate, Gaysert fails to anticipate Applicant's independent claims 1 and 24. Further, as dependent claims from an allowable claim, claims 2-3, 5-8, 10, 23, 25-27, and 29-32 are also allowable. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

B. Claims 1-3, 5-8, 10, 23-27, and 29-32 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 3,854,888 to Frietzsche et al. Applicant respectfully traverses.

U.S. Patent No. 3,854,888 to Frietzsche et al. (hereinafter "Frietzsche") discloses a device for the purification of waste gases of internal combustion engines a housing, at least one monolith, one compressed steel body ring, and supporting and protecting rings (Frietzsche at claim 1). Frietzsche discloses that the housing continues at both ends in extensions of frustoconical shape that taper down to a tubular diameter (Frietzsche at Column 3, lines 43-45).

Frietzsche doesn't teach a first endplate defining a first extreme end of said converter and comprising a first endplate support mechanism extending perpendicularly therefrom toward said catalyst, wherein said first endplate support mechanism is disposed between said mat support and said catalyst, and wherein said shell is disposed around and in intimate contact with at least a

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portion of said first endplate, as is recited in Applicant's amended claims 1 and 24. The Examiner alleges that the supporting ring 8 of Frietzsche is an "endplate". However, as can be seen from Fig. 1 of Frietzsche, supporting ring 8 does not define an extreme end of the converter. Instead, the converter of Frietzsche has extensions 3 and 4 that define the extreme ends of the converter, with supporting ring 8 being disposed inside the housing 1. In addition, extensions 3 or 4 cannot be considered as the "first endplate" because the housing certainly does not have a diameter greater than that of the first endplate or have a housing disposed around and in intimate contact with at least a portion of the first endplate as is claimed in the present application.

Since Frietzsche fails to teach a first endplate defining a first extreme end of said converter and comprising a first endplate support mechanism extending perpendicularly therefrom toward said catalyst, wherein said first endplate support mechanism is disposed between said mat support and said catalyst, and wherein said shell is disposed around and in intimate contact with at least a portion of said first endplate, as is recited in Applicant's amended claims 1 and 24, Frietzsche fails to anticipate these claims. Further, as dependent claims from an allowable claim, claims 2-3, 5-8, 10, 23, 25-27, and 29-32 are also allowable. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

C. Claims 1-3, 5-8, 10, 23-27, and 29-32 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 4,432,943 to Musall et al. Applicant respectfully traverses.

U.S. Patent No. 4,432,943 to Musall et al. (hereinafter "Musall") is directed to a device for the purification of waste gases of internal combustion engines comprising a housing, at least one monolith and the monolith having one compressed metallic body ring (Musall at claim 1). Musall discloses that an end Chamber 5 is formed between the housing wall 1 and collar 9, angular ring 11 and end wall 8, which contains the resilient cushion 6 being shaped as an annular ring (Musall at column 2, lines 56-59).

Musall does not teach a first endplate defining an extreme end of the converter and comprising a first endplate support mechanism extending perpendicularly therefrom toward the

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catalyst wherein said first endplate support mechanism is disposed between said mat support and said catalyst as is claimed in the present application. Instead, Musall teaches a housing 1 with a wall 8 disposed adjacent a collar 9 to form a chamber 5. Also disclosed is an angular ring 11 disposed about an end of the catalyst body 7, spaced apart from the collar 9. (See Figure 1) Contrary to the contention of the Office Action, collar 9 is not a portion of angular ring 11. Indeed, angular ring 11 is not connected to wall 8 or collar 9. It is unclear which of wall 8 or angular ring 11 that the Examiner alleges to be an endplate. If wall 8 were alleged to be an endplate, then it lacks a support mechanism extending perpendicularly therefrom toward the catalyst and *disposed between the mat support and the catalyst*, as required by claims 1 and 24, because collar 9 does not extend from the wall 8 and between the mat support and the catalyst (angular ring 11 is not a portion of collar 9). On the other hand, angular ring 11 does not define an *extreme end* of the converter and, therefore, is not a "first endplate defining an extreme end of the converter". Accordingly, Musall does not teach a first endplate defining an extreme end of the converter and comprising a first endplate support mechanism extending perpendicularly therefrom toward the catalyst *wherein said first endplate support mechanism is disposed between said mat support and said catalyst* as is recited in Applicant's claims 1 and 24.

Since Musall fails to teach each and every limitation of Applicant's amended claims 1 and 24, Musall fails to anticipate these claims. Further, as dependent claims from an allowable claim, Claims 2-3, 5-8, 10, 23, 25-27, and 29-32 are also allowable. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

Claim Rejection Under 35 U.S.C. § 103(a)

Claims 4, 9, 11-12, 14, and 28 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over either Musall, Friezsch, or Gaysert in view of either U.S. Patent No. 3,832,443 to Hass or U.S. Patent No. 3,441,281 to Keith et al. The Examiner alleges that it would have been obvious to one having ordinary skill in the art to substitute the catalyst of either Keith or Hass for the catalyst of the primary references for the known and expected results of obtaining the same results in the absence of unexpected results. Applicant respectfully disagrees that alone or in combination the references of record would render the present application obvious.

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U.S. Patent No. 3,832,443 to Hass (hereinafter "Hass") is directed to a process for the catalytic conversion of a gas stream containing nitrogen oxides, wherein the gases are passed at elevated conversion temperatures through a contacting zone containing an oxidation reduction catalyst (Hass at claim 1).

U.S. Patent No. 3,441,281 to Keith et al. (hereinafter "Keith") is directed to an apparatus for purifying internal combustion engine exhaust gases comprising a cylindrical casing, end closure means, an exhaust inlet, a cylindrical unitary refractory element-supported oxidation catalyst, a narrow annular space, an inwardly extending annular gas barrier member, another inwardly extending annular barrier member, and resilient flexible means (Keith at claim 1).

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Establishing a prima facie case of obviousness requires, *inter alia*, that all elements of the invention be disclosed in the prior art. *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970). As set forth above, neither Musall, Friezsche, nor Gaysert teach or suggest an exhaust system converter comprising a first endplate defining a first extreme end of said converter and comprising a first endplate support mechanism extending perpendicularly therefrom toward said catalyst, wherein said first endplate support mechanism is disposed between said mat support and said catalyst, and wherein said shell is disposed around and in intimate contact with at least a portion of said first endplate, as is recited in Applicant's amended claims 1 and 24. Similarly, neither Keith nor Haas teach or suggest such a converter. Consequently, neither Keith nor Haas remedy the deficiencies of Musall, Friezsche, and Gaysert. Accordingly, a combination of Musall, Friezsche, or Gaysert with either Keith or Haas fails to teach or suggest each and every limitation of Applicant's claims 1 and 24. Therefore, Applicant respectfully requests that the Examiner's rejection of dependent claims 4, 9, 11-12, 14, and 28 as being unpatentable over either Musall, Friezsche, or Gaysert in view of either Hass or Keith be reconsidered and withdrawn.

Conclusion

It is believed that the foregoing remarks fully comply with the Office Action and that the claims are allowable. Thus, reconsideration, withdrawal of the objections and rejections, and

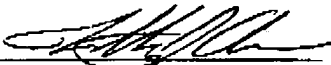
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allowance of this application are respectfully requested. The Examiner is invited to contact Applicants' attorneys at the below-listed phone number with any questions.

If there are any charges due with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Cantor Colburn LLP.

Respectfully submitted,

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